

Missouri MAP Grade-Level Blueprints

A test blueprint is a map and or a table of specifications for an assessment program to identify the structure of the assessment, which ensures that the Missouri Learning Standards Expectations are covered by the assessment program. The blueprint links the assessment to the content areas acting as a tool to align objectives to the appropriate weightage and questions across the strands.

Blueprints provide the essential planning materials for the assessment development process. The test blueprints are used to guide and target specific item development and writing as well as the form assembly. The blueprint along with item specifications, performance-level descriptors and the practice and processes documents provide strong content validity and reliability for the assessment system.

Assessments may contain selected response (SR) items, evidence-based selected response (EBSR), constructed response (CR) items, writing tasks (WT), performance events (PE) and/or technology enhanced (TE) items (e.g. drag and drop, drop-down menu, matching, select answers, hot spot, etc.)

Mathematics Groupings

- **Reporting Category** – Represent a group / groups of similar content standards / expectations within each grade and content area
- **Domain** – Larger groups of content standards/expectations that are closely related
- **Cluster** – Represents the core principles of what the students have been taught and have learned
- **Point Range** – Identifies the points possible for the reporting strand
- **Range of Emphasis** – Identifies the percentage of the assessment in the reporting strand

English Language Arts Groupings

- **Reporting Category** – Represent a group / groups of similar content standards / expectations within each grade and content area
- **Strand/Domain** – Larger groups of content standards/expectations that are closely related
- **Theme/Big Idea** – Represents the core principles of what the students have been taught and have learned
- **Point Range** – Identifies the points possible for the reporting category
- **Range of Emphasis** – Identifies the percentage of the assessment to the reporting category

Science Groupings

- **Recommended Reporting Category** – Represent a group / groups of similar content standards / expectations within each grade and content area
- **Domain** – Larger groups of content standards/expectations that are closely related
- **Cluster** – Represents the core principles of what the students have been taught and have learned
- **Point Range** – Identifies the points possible for the reporting category
- **Range of Emphasis** – Identifies the percentage of the assessment to the reporting category

Mathematics

Blueprint For Grade 3 Mathematics

| Reporting Category | Domain | Cluster | Point Range | Range Of Emphasis |
|---|--|--|-------------|-------------------|
| NBT | Number Sense And Operations In Base Ten | Use place value understanding and properties of operations to perform multi-digit arithmetic | 8-10 | 17-21% |
| NF | Number Sense And Operations In Fractions | Develop understanding of fractions as numbers | 8-10 | 17-21% |
| RA | Relationships And Algebraic Thinking | Represent and solve problems involving multiplication and division | 8-18 | 17-36% |
| | | Understand properties of multiplication and the relationship between multiplication and division | | |
| | | Multiply and divide within 100 | | |
| | | Use the four operations to solve word problems | | |
| | | Identify and explain arithmetic patterns | | |
| GM + DS | Geometry And Measurement | Reason with shapes and their attributes | 7-16 | 14-32% |
| | | Solve problems involving the measurement of time, liquid volumes and weights of objects | | |
| | | Understand concepts of area | | |
| | | Understand concepts of perimeter | | |
| | Data And Statistics | Represent and analyze data | | |
| Performance Event: Each year the performance event (PE) may align to any specific reporting category. The grade 3 PE contains all item types. See Online Tools Training (OTT) for example items. | | | 6 | 13% |
| Total | | | 48 | 100% |

Mathematics

Blueprint For Grade 4 Mathematics

| Reporting Category | Domain | Cluster | Point Range | Range Of Emphasis |
|---|--|---|-------------|-------------------|
| NBT | Number Sense And Operations In Base Ten | Use place value understanding and properties of operations to perform multi-digit arithmetic with numbers up to one million | 9-11 | 19-23% |
| NF | Number Sense And Operations In Fractions | Extend understanding of fraction equivalence and ordering (Limit denominators to 2, 3, 4, 5, 6, 7, 10, 12 and 100) | 8-14 | 16-29% |
| | | Extend understanding of operations on whole numbers to fraction operations | | |
| | | Understand decimal notation for fractions, and compare decimal fractions (Denominators of 10 or 100) | | |
| RA | Relationships And Algebraic Thinking | Use the four operations with whole numbers to solve problems | 5-11 | 10-22% |
| | | Work with factors and multiples | | |
| | | Generate and analyze patterns | | |
| GM + DS | Geometry And Measurement | Classify 2-dimensional shapes by properties of their lines and angles | 10-18 | 20-37% |
| | | Understand the concepts of angle and measure angles | | |
| | | Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit | | |
| | Data And Statistics | Represent and analyze data | | |
| Performance Event: Each year the performance event (PE) may align to any specific reporting category. The grade 4 PE contains all item types. See Online Tools Training (OTT) for example items. | | | 6 | 13% |
| Total | | | 48 | 100% |

Mathematics

Blueprint For Grade 5 Mathematics

| Reporting Category | Domain | Cluster | Point Range | Range Of Emphasis |
|---|--|---|-------------|-------------------|
| NBT | Number Sense And Operations In Base Ten | Use place value system understanding to perform operations with multi-digit whole numbers to billions and decimals to thousandths | 7-9 | 15-19% |
| NF | Number Sense And Operations In Fractions | Understand the relationship between fractions and decimals (denominators that are factors of 100) | 11-15 | 23-31% |
| | | Perform operations and solve problems with fractions and decimals | | |
| RA | Relationships And Algebraic Thinking | Represent and analyze patterns and relationships | 5-11 | 10-22% |
| | | Write and interpret numerical expressions | | |
| | | Use the four operations to represent and solve problems | | |
| GM + DS | Geometry And Measurement | Classify two- and three-dimensional geometric shapes | 8-18 | 16-36% |
| | | Understand and compute volume | | |
| | | Graph points on the Cartesian coordinate plane within the first quadrant to solve problems | | |
| | | Solve problems involving measurement and conversions within a measurement system | | |
| | Data And Statistics | Represent and analyze data | | |
| Performance Event: Each year the performance event (PE) may align to any specific reporting category. The grade 5 PE contains all item types. See Online Tools Training (OTT) for example items. | | | 6 | 13% |
| Total | | | 48 | 100% |

Mathematics

Blueprint For Grade 6 Mathematics

| Reporting Category | Domain | Cluster | Point Range | Range Of Emphasis | |
|---|---|--|-------------|-------------------|--|
| RP | Ratios And Proportional Relationship | Understand and use ratios to solve problems | 7-9 | 13-17% | |
| NS | Number Sense And Operations | Apply and extend previous understandings of multiplication and division to divide fractions by fractions | 9-14 | 17-26% | |
| | | Compute with non-negative multi-digit numbers, and find common factors and multiples | | | |
| | | Apply and extend previous understandings of numbers to the system of rational numbers | | | |
| EEI | Expressions, Equations And Inequalities | Apply and extend previous understandings of arithmetic to algebraic expressions | 12-18 | 22-34% | |
| | | Reason about and solve one-variable equations and inequalities | | | |
| | | Represent and analyze quantitative relationships between dependent and independent variables | | | |
| GM + DSP | Geometry And Measurement | Solve problems involving area, surface area and volume | 10-15 | 19-28% | |
| | Data Analysis, Statistics And Probability | Develop understanding of statistical variability | | | |
| | | Summarize and describe distributions | | | |
| Performance Event: Each year the performance event (PE) may align to any specific reporting category. The grade 6 PE contains all item types. See Online Tools Training (OTT) for example items. | | | 8 | 15% | |
| Total | | | 54 | 100% | |

Mathematics

Blueprint For Grade 7 Mathematics

| Reporting Category | Domain | Cluster | Point Range | Range Of Emphasis | |
|---|---|---|-------------|-------------------|--|
| RP | Ratios And Proportional Relationship | Analyze proportional relationships and use them to solve problems | 10-12 | 19-22% | |
| NS | Number Sense And Operations | Apply and extend previous understandings of operations to add, subtract, multiply and divide rational numbers | 8-10 | 15-19% | |
| EEI | Expressions, Equations And Inequalities | Use properties of operations to generate equivalent expressions | 11-15 | 20-28% | |
| | | Solve problems using numerical and algebraic expressions and equations | | | |
| GM + DSP | Geometry And Measurement | Draw and describe geometrical figures and describe the relationships between them | 9-18 | 18-33% | |
| | | Apply and extend previous understanding of angle measure, area and volume | | | |
| | Data Analysis, Statistics And Probability | Use random sampling to draw inferences about a population | | | |
| | | Draw informal comparative inferences about two populations | | | |
| | | Develop, use and evaluate probability models | | | |
| Performance Event: Each year the performance event (PE) may align to any specific reporting category. The grade 7 PE contains all item types. See Online Tools Training (OTT) for example items. | | | 8 | 15% | |
| Total | | | 54 | 100% | |

Mathematics

Blueprint For Grade 8 Mathematics

| Reporting Category | Domain | Cluster | Point Range | Range Of Emphasis | |
|---|---|--|-------------|-------------------|--|
| NS + EEI | Number Sense And Operations | Know that there are numbers that are not rational, and approximate them by rational numbers | 17-25 | 32-46% | |
| | Expressions, Equations And Inequalities | Work with radicals and integer exponents | | | |
| | | Understand the connections between proportional relationships, lines and linear equations | | | |
| | | Analyze and solve linear equations and inequalities and pairs of simultaneous linear equations | | | |
| GM + DSP | Geometry And Measurement | Understand congruence and similarity using physical models, transparencies and geometry software | 12-20 | 23-37% | |
| | | Understand and apply the Pythagorean Theorem | | | |
| | | Solve problems involving volume of cones, pyramids and spheres | | | |
| | Data Analysis, Statistics And Probability | Investigate patterns of association in bivariate data | | | |
| F | Functions | Define, evaluate and compare functions | 7-11 | 13-20% | |
| | | Use functions to model relationships between quantities | | | |
| Performance Event: Each year the performance event (PE) may align to any specific reporting category. The grade 8 PE contains all item types. See Online Tools Training (OTT) for example items. | | | 8 | 15% | |
| Total | | | 54 | 100% | |

English Language Arts

Blueprint For Grade 3 ELA

| Reporting Category | Strand/Domain | Theme/Big Idea | Point Range | Range Of Emphasis |
|--------------------|--------------------|--|-------------|-------------------|
| Reading | Reading | Develop and apply skills to the reading process | 12-14 | 21-25% |
| | | Develop and apply skills and strategies to comprehend, analyze and evaluate fiction, poetry and drama from a variety of cultures and times | | |
| | | Comprehend and analyze words, images, graphics, and sounds in various media and digital forms to impact meaning | | |
| | Informational | Develop and apply skills to reading process | 12-14 | 21-25% |
| | | Develop and apply skills and strategies to comprehend, analyze and evaluate nonfiction (e.g., narrative, information/explanatory, opinion, persuasive, argumentative) from a variety of cultures and times | | |
| | | Comprehend and analyze words, images, graphics, and sounds in various media and digital forms to impact meaning | | |
| Research | Writing | Gather, analyze, evaluate and use information from a variety of sources | 7-9 | 13-16% |
| Writing | Writing | Apply a writing process to develop a text for audience and purpose | 7-9 | 13-16% |
| | Language | Communicate using conventions of English language | 5-7 | 9-13% |
| Speaking/Listening | Speaking/Listening | Listen for a purpose | 7-9 | 13-16% |
| | | Listen for entertainment | | |
| | | Speak effectively in collaborative discussions | | |
| | | Speak effectively when presenting | | |
| Total | | | 56 | 100% |

English Language Arts

Blueprint For Grade 4 ELA

| Reporting Category | Strand/Domain | Theme/Big Idea | Point Range | Range Of Emphasis |
|--------------------|--------------------|---|--|-------------------|
| Reading | Reading | Literacy | Develop and apply skills to the reading process | 12-14 21-25% |
| | | | Develop and apply skills and strategies to comprehend, analyze and evaluate fiction, poetry and drama from a variety of cultures and times | |
| | | | Comprehend and analyze words, images, graphics, and sounds in various media and digital forms to impact meaning | |
| | Informational | Develop and apply skills to reading process | 12-14 21-25% | |
| | | | Develop and apply skills and strategies to comprehend, analyze and evaluate nonfiction (e.g., narrative, information/explanatory, opinion, persuasive, argumentative) from a variety of cultures and times | |
| | | Comprehend and analyze words, images, graphics, and sounds in various media and digital forms to impact meaning | | |
| Research | Writing | Gather, analyze, evaluate and use information from a variety of sources | 7-9 | 13-16% |
| Writing | Writing | Apply a writing process to develop a text for audience and purpose | 2 | 4% |
| | | Compose well-developed writing texts for audience and purpose | 8 | 14% |
| | Language | Communicate using conventions of English language | 4 | 7% |
| Speaking/Listening | Speaking/Listening | Listen for a purpose | 7-9 13-16% | |
| | | Listen for entertainment | | |
| | | Speak effectively in collaborative discussions | | |
| | | Speak effectively when presenting | | |
| Total | | | 56 | 100% |

English Language Arts

Blueprint For Grade 5 ELA

| Reporting Category | Strand/Domain | Theme/Big Idea | Point Range | Range Of Emphasis |
|--------------------|--------------------|--|--|-------------------|
| Reading | Reading | Literacy | Develop and apply skills to the reading process | 12-14 21-25% |
| | | | Develop and apply skills and strategies to comprehend, analyze and evaluate fiction, poetry and drama from a variety of cultures and times | |
| | | | Comprehend and analyze words, images, graphics, and sounds in various media and digital forms to impact meaning | |
| | Informational | Develop and apply skills to reading process | 12-14 21-25% | |
| | | Develop and apply skills and strategies to comprehend, analyze and evaluate nonfiction (e.g., narrative, information/explanatory, opinion, persuasive, argumentative) from a variety of cultures and times | | |
| | | Comprehend and analyze words, images, graphics, and sounds in various media and digital forms to impact meaning | | |
| Research | Writing | Gather, analyze, evaluate and use information from a variety of sources | 7-9 | 13-16% |
| Writing | Writing | Apply a writing process to develop a text for audience and purpose | 7-9 | 13-16% |
| | Language | Communicate using conventions of English language | 5-7 | 9-13% |
| Speaking/Listening | Speaking/Listening | Listen for a purpose | 7-9 13-16% | |
| | | Listen for entertainment | | |
| | | Speak effectively in collaborative discussions | | |
| | | Speak effectively when presenting | | |
| Total | | | 56 | 100% |

English Language Arts

Blueprint For Grade 6 ELA

| Reporting Category | Strand/Domain | Theme/Big Idea | Point Range | Range Of Emphasis |
|--------------------|--------------------|--|-------------|-------------------|
| Reading | Reading | Comprehend and interpret texts (approaching texts as a reader) | 13-15 | 23-27% |
| | | Analyze craft and structure (approaching texts as a writer) | | |
| | | Synthesize ideas from multiple texts (approaching texts as a researcher) | | |
| | Informational | Comprehend and interpret texts (approaching texts as a reader) | 13-15 | 23-27% |
| | | Analyze craft and structure (approaching texts as a writer) | | |
| | | Synthesize ideas from multiple texts (approaching texts as a researcher) | | |
| Research | Writing | Approaching the task as a researcher | 7-9 | 13-16% |
| Writing | Writing | Approaching the task as a reader | 8 | 15% |
| Speaking/Listening | Speaking/Listening | Collaborating | 7-9 | 13-16% |
| | | Presenting | | |
| Total | | | 56 | 100% |

English Language Arts

Blueprint For Grade 7 ELA

| Reporting Category | Strand/Domain | Theme/Big Idea | Point Range | Range Of Emphasis | |
|--------------------|--------------------|--------------------------------------|--|-------------------|--------|
| Reading | Reading | Literacy | Comprehend and interpret texts (approaching texts as a reader) | 13-15 | 25-29% |
| | | | Analyze craft and structure (approaching texts as a writer) | | |
| | | | Synthesize ideas from multiple texts (approaching texts as a researcher) | | |
| | Informational | Informational | Comprehend and interpret texts (approaching texts as a reader) | 13-15 | 25-29% |
| | | | Analyze craft and structure (approaching texts as a writer) | | |
| | | | Synthesize ideas from multiple texts (approaching texts as a researcher) | | |
| Research | Writing | Approaching the task as a researcher | 7-9 | 13-17% | |
| Writing | Writing | Approaching the task as a reader | 7-9 | 13-17% | |
| Speaking/Listening | Speaking/Listening | Collaborating | 7-9 | 13-17% | |
| | | Presenting | | | |
| Total | | | 52 | 100% | |

English Language Arts

Blueprint For Grade 8 ELA

| Reporting Category | Strand/Domain | Theme/Big Idea | Point Range | Range Of Emphasis |
|--------------------|--------------------|--|-------------|-------------------|
| Reading | Reading | Comprehend and interpret texts (approaching texts as a reader) | 13-15 | 23-27% |
| | | Analyze craft and structure (approaching texts as a writer) | | |
| | | Synthesize ideas from multiple texts (approaching texts as a researcher) | | |
| | Informational | Comprehend and interpret texts (approaching texts as a reader) | 13-15 | 23-27% |
| | | Analyze craft and structure (approaching texts as a writer) | | |
| | | Synthesize ideas from multiple texts (approaching texts as a researcher) | | |
| Research | Writing | Approaching the task as a researcher | 7-9 | 13-16% |
| Writing | Writing Language | Approaching the task as a writer | 8 | 14% |
| | | Approaching the task as a reader | 4 | 7% |
| Speaking/Listening | Speaking/Listening | Collaborating | 7-9 | 13-16% |
| | | Presenting | | |
| Total | | | 56 | 100% |

Science

Blueprint For Grade 5 Science

| Recommended Reporting Category | Domain | Cluster | Point Range | Range Of Emphasis |
|--------------------------------|--------------------------|---|-------------|-------------------|
| PS | Physical Science | Matter and its interactions | 17-26 | 33-40% |
| | | Motion and stability: Forces and interactions | | |
| | | Energy | | |
| | | Waves and their applications in technologies for information transfer | | |
| LS | Life Science | From molecules to organisms: Structure and processes | 15-22 | 30-33% |
| | | Ecosystems: Interactions, energy, and dynamics | | |
| | | Heredity: Inheritance and variation of traits | | |
| ESS | Earth And Space Sciences | Earth's place in the universe | 15-22 | 30-33% |
| | | Earth's systems | | |
| | | Earth and human activity | | |
| Total | | | 60 | 100% |

Science

Blueprint For Grade 8 Science

| Recommended Reporting Category | Domain | Cluster | Point Range | Range Of Emphasis |
|--------------------------------|--------------------------|---|-------------|-------------------|
| PS | Physical Science | Matter and its interactions | 15-23 | 30-35% |
| | | Motion and stability: Forces and interactions | | |
| | | Energy | | |
| | | Waves and their applications in technologies for information transfer | | |
| LS | Life Science | From molecules to organisms: Structure and processes | 15-23 | 30-35% |
| | | Ecosystems: Interactions, energy, and dynamics | | |
| | | Heredity: Inheritance and variation of traits | | |
| ESS | Earth And Space Sciences | Earth's place in the universe | 15-23 | 30-35% |
| | | Earth's systems | | |
| | | Earth and human activity | | |
| Total | | | 60 | 100% |

The Department of Elementary and Secondary Education does not discriminate on the basis of race, color, religion, gender, gender identity, sexual orientation, national origin, age, veteran status, mental or physical disability, or any other basis prohibited by statute in its programs and activities. Inquiries related to department programs and to the location of services, activities, and facilities that are accessible by persons with disabilities may be directed to the Jefferson State Office Building, Director of Civil Rights Compliance and MOA Coordinator (Title VI/Title VII/Title IX/504/ADA/ADAAA/Age Act/GINA/USDA Title VI), 5th Floor, 205 Jefferson Street, P.O. Box 480, Jefferson City, MO 65102-0480; telephone number 573-526-4757 or TTY 800-735-2966; email civilrights@dese.mo.gov.